



## VIDEO: STATE OF THE ART

The Rockefeller Foundation, 1976

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### INTRODUCTION

*"Video was the most shared, the most democratic art form. . . Everybody believed deeply that he had invented feedback. Feedback was invented simultaneously not by five people, like electricity, but by five thousand."*

—Woody Vasulka

When one begins to think about video, it is important to keep in mind its immense flexibility as a medium. It is not only TV, the standard piece of American living room furniture, it is also a material for making electronic graphics, the surveillance system in the neighborhood supermarket, the training tool that shows all too instantly what kind of teacher or tennis player you are, and a means of documenting almost anything from the SLA burnout in Los Angeles to a grandmother's memories of her childhood. In other words, the video world is much larger than the art world, and people who make video art may have very diverse backgrounds in the medium. Consequently, the term "video art" does not describe any single unified style; it indicates a shared medium.

Most video art-making began in 1968 and 1969. The social and artistic ferment of those years had a great deal to do with the way the medium was first used. Nineteen sixty-eight also marks a technical watershed: it was the year portable, relatively inexpensive television equipment came on the market, thus opening the medium to a vast new group of people. Although these people were interested in the equipment for many different reasons, most of them shared an acute dissatisfaction with broadcast television. They were unhappy with the monolithic nature of TV, with the control of three major net-

works, with the quality of programming—the lack of diverse content and the routine visual sameness of it all.

This reaction against broadcast television is usually discernible in much early video. Some experimenters took their new light cameras out into the streets and to the countryside, recording people and social situations broadcast TV never would have bothered with. This group of people was concerned with exploring as rich an array of subjects as possible. They felt broadcast TV had developed bland programming in an effort to offend as few people as possible, attract high ratings, and thus command higher prices for advertising time. The alternative television people were not supported by advertising; they didn't care about ratings. They were free to focus their cameras on anything, even things that would interest only the people living in a single neighborhood.

Others were concerned with electronics research and development. These people considered it ridiculous that the perfect television image was thought to be the smooth, glowing pink face of Walter Cronkite. Some of these experimenters come from a strong twentieth century graphic tradition of exploration with light imagery going back at least as far as the Futurists and the Bauhaus. Those who had been looking for a medium of moving, colored light were overjoyed to find that television could produce abstract images as easily as it could transmit a newscaster's face. Some members of this group built new electronic circuitry to produce different imagery. These people are among the real pioneers of the medium; they are fascinated with the role technology plays in our society and are constantly searching for new ways to make this role visually manifest. They feel that the structure of electronic



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tools reflects as well as informs our thinking, and by using tools that produce visual patterns, they hope to reveal to us our social and technological directions.

Still another group was reacting against the one-directional flow of broadcast TV, which streams day after day into the homes of millions of people without providing the means for them to speak back equally directly. They pointed out that we have only receivers in our homes, not transmitters, and sometimes these people set up small, closed-circuit environments that contained both cameras and monitors. Often the earliest such environments held banks of monitors; one could see one's own image (being picked up by cameras in the room) on monitors next to others showing programs coming off the air. In this manner, a viewer could explore the idea that his or her image was as interesting as that of a quiz-show personality. Many of those who created environments were fundamentally interested in the nature of visual and aural information, in how we receive and digest it, and how it affects us, both consciously and unconsciously.

During the time this reaction against broadcast television was going on (1967-1970), the established art world was facing some challenges of its own. Many artists found that the traditions of painting and sculpture had arrived at a critical cul-de-sac, and they were searching for other means of expression. In addition, the commercial art world was in the midst of escalating prices and wild buying, a situation further confused by a prevailing indecision about the relative merits of different kinds of art.

One result of this atmosphere of change was the reaction of some artists against the production of art objects: they preferred to work in nonbuyable, nonpossessable media, partly in an attempt to free themselves from the art market as it was then functioning. Consequently, there was an explosion of new kinds of art, most of them either variations on performance, theater, and dance, or mechanically reproducible art forms such as photography, film, and video. Video fell into this art world very neatly. It could be used to record all kinds of performances and actions, enabling them to be repeated again and again. It could either be abstract or representational in its imagery (it was not inherently one or the other), and so side-stepped certain critical dilemmas. A few galleries and museums began to collect tapes, hire curators, and organize exhibitions.

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STEP BACK



STEP FORWARD

The following discussion is not a comprehensive history of the first years of interest in video as a creative medium, but is rather an attempt to chart some of the ways the energy has flowed and to introduce a few of the more interesting people and situations. In general, one might say that art-making has occurred in three areas of video activity—these are arbitrary divisions, but are useful descriptively. One is the aforementioned realm of electronics research and development. Because of its roots in other twentieth-century graphic traditions, this is often the work most accessible to people first looking at the medium. Examples include the famous "synthesizer" tapes and special effects graphics of many kinds. A second area of activity has been documentary, an area that is currently interesting historians and critics of photography and film as well. The third area is probably the most complex. It includes performances, conceptual work and what may be called information-perception pieces. This group includes both video tapes and live video installations that in some way expand the limits of the viewer's ability to perceive himself or herself in a technologically charged environment.

## HISTORICAL NOTES

### Individuals and Small Groups

A few rumblings in the early sixties anticipated the general eruption of interest in the medium later in the decade. NAM JUNE PAIK —



FRAME 48 step through next 16 frames

is probably the most famous and certainly one of the most interesting members of the movement; his work is a collage of all three divisions of video activity. He was born in Korea and was educated in Japan and Germany, where he studied philosophy and music. By his own estimate, he has given over 100 performances, which reflect his interest in avant-garde music (John Cage is a major influence) and the Fluxus movement. His first exhibition of television was in Germany in 1963, in which he showed television sets whose off-the-air images were distorted. By 1965, Paik had moved to New York and was having exhibitions here. His work takes many forms—video performances and video



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installations as well as video tapes—and shows his interest in process rather than product; the new often has elements carried forward from the old.

Paik has always been on the outer fringes of the movement technically. In 1965, he bought one of Sony's first portable video tape recorders and displayed tapes the same night. He was the co-developer, with SHUYA ABE,—



FRAME 060

of one of the first video synthesizers. Several people were working on synthesizers in 1968 and 1969 and each machine reflects the desires of its builder. They have in common the ability to produce dazzling color patterns and forms, moving and shifting through time. The Paik-Abe synthesizer is the perfect tool for Paik's work—it takes black-and-white camera images and mixes and colorizes them, producing dense, often layered, brilliantly colored fragments.

Paik's basic style is one that has become familiar in this century, a collage of juxtaposed pieces of information wrenched out of their original contexts. His taped work constantly reshuffles bits and pieces of material from all over the world—a Korean drummer in action, Japanese Pepsi commercials, go-go dancers, tapes of his own performances with cellist CHARLOTTE MOORMAN.—



FRAME 047

He has spoken of how we live in an age of information overkill; his fast-paced, disjunct, percussive tapes heighten and intensify this barrage of image and sound. The effect is jolting. Paik makes the viewer stop and think, and he does this not only in his performances and tapes: his production of enigmatic, deadpan aphorisms is second only to Andy Warhol's in the world of art. "I would rather be corrupted than repeat the sublime," he said with a chuckle during a televised interview with Russell Connor and Calvin Tompkins.

ERIC SIEGEL —



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was another forerunner. He began building TV sets in high school and has continued building video equipment ever since. He was also the builder of an



early video synthesizer, and another tool, his colorizer, has been used by half the artists in the country who want color in their tapes. Siegel's own work ranges from an early special-effects tape of Einstein to more recent personal documentary tapes.

A third early experimenter, and one who has remained steadfastly independent of any group affiliation, is Les Levine. In 1968, after he had been working with video tape for some time, he presented the first public showing of his work. As the audience watched his prerecorded video tapes on such subjects as the destruction of art and the nude model, they could also watch their own reactions on a closed-circuit monitor: Levine had a camera in the room. This is typical of his work—Levine is not interested in traditional aesthetics, but with television environments, with the movement of information within physical and temporal limits. He was quoted in a *New York Times* review as saying that he hoped to help people form new images of themselves by showing them their reactions to what they see. "They'll change as they note their responses to various situations presented on the tapes.... If you see yourself looking self-conscious, for example, you'll be forced to think why."

Also in 1968, Levine produced his first "television sculpture," *Iris*. Once again, Levine had the viewer confronting himself via television. In this case, all the hardware for the closed-circuit system was contained in one eight-foot-tall sculpture-console. Standing in front of this console, the viewer faced six monitors and three concealed video cameras. The cameras shot the space in front of the console, and presented views of the environment in close-up, middle distance, and wide angle. Each of these cameras had its own monitor and the three others provided distorted images that might or might not be recognizable. Thus, a viewer standing in front of the console could see three different views of himself juxtaposed with other random video information.

In this early work, Levine opened an examination of television as an information system of great flexibility and complexity. This aspect of the medium has been further explored with increasing subtlety and sophistication by several artists in the years since Levine made *Iris*.

By 1968, inexpensive portable equipment was becoming widely available. During the next year or so, various people bought cameras and video tape



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recorders (portapaks) and experimented with them alone or in small groups. A group of graduating college seniors in Santa Clara, California, was typical: one of them had invested in a portapak, and he and his friends used it so constantly that it finally wore out. Most of that group have continued their interest in video, and two will be discussed later—George Bolling, who is the video curator at the de Saisset Art Gallery in Santa Clara and introduced a whole generation of San Francisco artists to the medium, and Skip Sweeney, who co-founded Video Free America, a San Francisco group that, among other things, sponsored some of the earliest video theater.

In New York, Commidation appeared. It was the first of a long series of video groups to emerge. David Cort, Frank Gillette, Ken Marsh, and Howie Gutstadt were members, and like many people initially attracted to the medium, they were primarily interested in video as a tool for social change. A little of David Cort's history may help to illuminate the motives of many people working in video.

Cort had originally been involved in the theater, but the late 1960's found him working at the Brooklyn Children's Museum, involved in antipoverty outreach programs.

*I got started in documentary work in political things, attempting to bring together divergent peoples. . . . I was overwhelmed by the lightness of the video camera, the intimacy of it, the way you could talk from behind the camera to people and they could talk to you looking at the camera. The camera was like a funnel through which you could work. You could move in, and be intimate and close.*

Cort was impressed with the flexibility of the medium, and dissatisfied with how it was used in broadcast:

*I look at TV and it's so passive. "Feed me information, tell me what to feel, tell me what to believe, and I'll sit there and take it in." Walter Cronkite tells you what to believe.*

*...I'd rather have lots of different individuals involved, so you would have a lot of different viewpoints, ideas, instead of one. Walter Cronkite tries to tell you that he has no viewpoint, that he's objective; "That's the way it is." The whole story is held*

*together by his personality; it centers around him. I found that to be uninteresting.*

Cort was further disenchanted with TV because of an uncomfortable experience he and his wife had had on a daytime TV show. They had felt overwhelmed, humiliated, and manipulated, and the experience influenced Cort's own work:

*It has become a basic esthetic. It's like a rule. Whenever I work in video, everybody I work with has to have a feed, has to see what's going on. Nothing can be hidden. One of the things I object to most about journalism is that people come in and they take your picture, and you don't know what they're taking. They may play it back to you afterwards, but that's not the same as seeing it while it's there.*

He goes on to say:

*You know, I think a lot of people are in video because they have no choice—it's so overwhelmingly around you. It's almost like a responsibility that you have to take, that you have to work with it because it's all-pervasive. We are confronted with this alien, cold equipment and we are to make something human, to involve the human being in it in some way, to make him active, to make him participate. At one and the same time you want to control it and you want to destroy it, you want to remove it and get back to the romantic, but you can't. So you are faced with it and you have to do something with it that will be fun, that will be joyous, that will be human rather than anti-human, that will be positive.*

It is exciting to hear conversations about the first few months of experimentation. In New York City, people carrying portapaks bumped into each other on the street or at parties and got to know each other; the famous concert at Woodstock in 1969 was yet another meeting place. Many video groups formed quite rapidly, and often just as rapidly some of them dissolved, but the cast of characters remained remarkably constant. Most of them, as was the case with the group in San Francisco, are still at the heart of the medium today: Ira Schneider, Frank Gillette, David Cort, Beryl Korot, Ken Marsh, John Reilly, Rudi Stern, Parry Teasedale, Michael Shamberg, to mention only a few of them.

The artist Bruce Nauman, in 1967, used video as

part of a gallery installation; in 1968, he started to record his performances on video tape. And so, by the end of the first year of activity in the medium, several different uses had already been established: synthesizers were being constructed to produce new electronic imagery, documentary tapes were being made, and the medium was beginning to be explored by conceptual artists to record performances and gestures.

In 1969, artists who were not already acquainted found themselves looking at each other's work at the first large gallery exhibition, "Television as a Creative Medium," a display that was organized by Howard Wise. Wise has been one of the staunchest supporters of electronic arts in general, and video in particular. He has subsequently relinquished his Fifty-seventh Street gallery in order to support video full time, and is currently one of the largest distributors of artists' video tapes. At his Fifth Avenue headquarters, Electronic Arts Intermix, he also provides an open-access editing facility for artists. At his 1969 show, he gathered together video tapes and sponsored installations; the artists got to know each other, and several new video groups formed as a result. Also in 1969, WGBH-TV broadcast the first video "sampler," a half-hour program showing the work of six artists.

Video activity, by 1970, seemed to have all marks of a fullfledged art movement: there was a large museum show, a movement magazine appeared, art critics got involved, and official funding agencies were interested. First there was the exhibition at the Rose Art Museum at Brandeis University, organized by Russell Connor. Connor, like Howard Wise, has continued to be deeply involved in video and has indeed probably done more than anyone else to bring video art to a wide audience. This past year, for example, he hosted a series of twenty-two programs of various artists' work, broadcast over New York City's Channel 13. Many of the East Coast video artists and groups were represented at his Rose Art Museum Show, "Vision and Television."

Second, during the summer of 1970, the first issue of the video movement's magazine appeared. It was called *Radical Software*, and was published by Raindance Corporation. The early issues of the magazine conveyed the heady excitement of the times; they were packed full of drawings, how-to articles, names and addresses. Another avant-garde journal, *Avalanche*, also started publication in 1970;

one of its editors is Willoughby Sharp, a video-performance artist, and much of each issue has to do with video.

Third, two critics writing about video soon became involved in making it. Michael Shamberg was a reporter for *Time*; he became one of the founding members of Raindance Corporation, a group that, through *Radical Software* and other activities, served as information central in the video community. A while later, Shamberg co-founded TVTV, a video documentary group. Douglas Davis was and is the art critic for *Newsweek*; he has become an extremely prolific video artist as well.

Finally, in 1970, the New York State Council for the Arts became very involved in supporting video. The council has funded a wide variety of projects, centers, and individuals. The first years of the video movement had witnessed, for the most part, an openness and sharing among its members. Whether they were tinkering with synthesizers or out in the streets with portapaks or building complicated gallery installations, they all considered themselves to be part of the same movement. By 1970-1971, however, divisions began to occur. The two major groups to emerge were "art video" and "social action video." And within the art group there were further subdivisions into "synthesizer video," "conceptual video," and so on. Splits probably occurred most often over problems in funding, a consistently difficult task for most video people. They do not fit into the traditional art marketing system at all and so have had to do much of their work on grants from the NEA, state councils, and the Rockefeller Foundation. They also have had difficulties in getting their work to audiences. Broadcast television has, with a few notable exceptions, been uninterested. Museums and galleries have begun a stream of exhibitions but these have taken awhile to catch on. Exhibitions of this sort must be arranged very carefully, as watching tapes of any length in a conventional gallery is not comfortable.

It is worth noting that in 1970-1971 many conceptual artists were attracted to the medium. It must have seemed like manna from heaven to a group searching for a new, inexpensive means of expressing complicated ideas, perceptions, and actions in time. Most conceptual artists were affiliated with galleries in one way or another, having shed earlier media, especially sculpture, which galleries could more or less adequately exhibit. At any rate,



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they had a way of trying to absorb into the whole gallery system a medium that was not always comfortable within it, and of applying to the medium a complicated system of aesthetics derived from the critical dilemmas of painting and sculpture during the 1960's. Possibly this further deepened some of the previously mentioned divisions.

Eventually, although funding problems were far from solved, the different groups settled down and made subtle shifts to accommodate each other. It has been my experience that good art has come from every group; no one has a corner on philosophic or aesthetic quality. The most interesting synthesizer artists have grown from early color and pattern experiments (which earned them the title of "video wallpaper artists") to making rich statements. The most interesting conceptual artists have grown from applying preconceived ideas to the medium (which earned them the title of "boring academicians") to working within the medium, learning from it, integrating it into the fabric of their pieces.

Also, some of the galleries have worked very hard to distribute tapes in ways so that people can see them. The ambitious Castelli-Sonnabend Art Tapes Program is especially good. Under the direction of Joyce Nereaux, artists are asked to submit tapes of any type or length; the only specification (other than they meet the general tastes of the gallery) is that they be in a standard format.

### The Centers

Contemporary to this activity carried on by individuals was a sudden growth of interest in experimental television at three major broadcast centers: KQED in San Francisco, WGBH in Boston, and WNET in New York. KQED and WGBH were first off the mark; in 1967 they both received grants from the Rockefeller Foundation to establish experimental workshops in television. Brice Howard was the director of the first San Francisco workshop. During the first year, he asked five artists from the Bay area to come to the station, and he gave them access to the tools of television. They included a poet, a filmmaker, a novelist, a painter-sculptor, and a composer, Richard Felciano, who stayed with the workshop in following years. The TV director for the project was Bob Zagone, a young man who had been interested in innovative programming at KQED for some time. The experimenters found it increasingly

difficult to work within the structure of a broadcast station, using bits of studio time left over from the news productions. Howard gradually moved the program out of the KQED building and set up a separate, genuine workshop. The first-year artists, who were established in their own disciplines, were replaced during the ensuing years by people who concentrated on television itself (although they came from diverse backgrounds). The basic group came to include Willard Rosengquist, a professor of design at Berkeley; Bill Gwin, a young painter; Stephen Beck, an electronics designer; Don Hallock, a man with past experience both in broadcast TV and painting; Bill Roarty, a graphics designer who had also worked in television previously; and at various times two composers, first Richard Felciano and later Warner Jepson. In 1969, the workshop became the National Center for Experiments in Television (NCET), still under the direction of Brice Howard. Howard was an extraordinary man who provided an atmosphere where experimentation could go on free from pressures of a broadcast situation. The workshop gradually acquired and built equipment, and the members had time to learn the medium in a craftsmanlike fashion.

During the late 1960's and early 1970's, the Corporation for Public Broadcasting sponsored an internship program, in which TV personnel from around the country could come to the center to study. The center's current director, Paul Kaufman, described what happened:

*...what went on was the formation of a workshop environment into which came dozens and dozens of stunned producers and directors from all over the public broadcast stations . . . as a result, a lot of people in the system were exposed, and a lot of people in a sense went mad professionally, because Brice's personality and the general ambiance in the Center so strongly contrasted with the somewhat uptight and constrictive relationships at the stations.*

One of the people who "went mad professionally" was Bill Roarty, who came as an intern in 1969 and then came back to stay in 1971. His memories provide insight into the atmosphere at the center and into Howard's teaching:

*What happened in that six weeks was fascinating, because everything they were saying about televi-*

sion connected exactly with everything I had been told as a painting student. They were approaching it essentially the same way . . . it was material, it was surface. . . . The connection was obvious and immediate to me; the thing I was working in, television, was a medium, and I had never thought of it that way before.

. . . The idea that Brice spoke about so beautifully was that if you did divorce broadcast from the making of television, you can cut away an enormous amount of very conventionalized and superfluous ritual . . . the making of programs for broadcast in the old sense was at the very least manipulative, and not in any way connected to what I thought of as the creative process. It goes right down the line . . . you can examine the vocabulary people developed, "control room," "camera shots," etc. Broadcast was eliminated from our discussion but really it was included all the time, as a poor relative.

Roarty goes on to describe a typical day at the center, which at that time was in one huge room:

Warner and I would be working on a complex sound composition and immediately to our left would be Stephen, designing a circuit and then on the other side of that would be Bill Gwin, looking at a tape, and over there would be Willard, working on light forms. You couldn't help but be completely excited by the thoughts and perceptions of all the people around you approaching things each in his own way.

From 1971 on, the Rockefeller Foundation gave support to a new program of the center's. Paul Kaufman recalls:

The time had come to try to see if you could do something about changing the moribund characteristics of teaching about television in the Universities. . . . We began a project that lasted for three years, which initially had people from the Center going out and visiting a lot of campuses, bringing tapes along, going to art departments, essentially saying to University people, "Look here, here's something new and something interesting, and you can do it. It's important to do it because we are going to have to train a whole new generation of image-sensitive people, and the schools aren't doing it." Well, out of this group of initial visits, about 5 or 6 places kind of

surfaced as possible workshop sites, and eventually these became more or less mini-Centers in themselves.

The center entered a highly productive period in the spring of 1972. Don Hallock, Bill Gwin, Willard Rosenthal, and Bill Roarty all produced some of their most beautiful tapes. (Some of these tapes will be discussed in the third section of this report.) In the fall, Warner Jepson and Stephen Beck embarked on a concert tour around the country, giving performances with their audio and video synthesizers, respectively.

This burst of activity continued into the summer of 1973, when Don Hallock presented his "Videola" at the San Francisco Art Museum. Since that time, the direction of the center has been changing. There has been a shift from art to an interest in developing structural approaches to the medium. Paul Kaufman, the director, used the term "visual thinking" to describe his interest in finding a way of using all their experimentation of the preceding years to help figure out ways to get social, political, or philosophical ideas across on television without resorting to the traditional lecture form.

At any rate, the center as a place for aesthetic exploration is dissolving, and it leaves an empty space in the video world. Bill Gwin stumbled onto the old center in 1969 as a young painter, and here speaks about it as a place to learn:

It was lucky for me because I learned how to use things in a very slow and unpressured way. When I was first there, they had one black and white camera and one tape machine, and that was all. They added more equipment slowly, so I started off with the most basic kind of situation, and over a period of three years learned how to use all of that equipment. It was nice; there's no place like it anymore, which is a problem.

The workshop at WGBH-TV in Boston also was initially funded by the Rockefeller Foundation, but it took a very different direction from the National Center in San Francisco. No separate workshop was set up during the early years; instead, artists-in-residence embarked on special projects, and producers on the WGBH staff did innovative projects of their own as well. Thus, the experimentation was carried on within the structure of the station, in its



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studios, using its equipment. Two producers at the station have been especially active. Fred Barzyck began after-hours experimenting with jazz programming in 1964. By 1969, he had produced *The Medium Is the Medium*, the first broadcast-TV program magazine of video artists' work, and he has continued to be wonderfully supportive of experimental work in the station. Even a partial list of his programs reveals a wide range of interests; he produced an early, free-form weekly series called *What's Happening, Mr. Silver?* in 1968, used the first portable color video equipment to do *Jean Shepherd's America* in 1971, tried a novel adaptation of Kurt Vonnegut's work for television, *Between Time and Timbuktu* in 1971-1972, and produced a second, larger document of the video movement for broadcast, *Video: The New Wave*, in 1973. Another producer, Rick Hauser, has concentrated on experimental drama and dance for television. He was an early Rockefeller artist-in-residence within the station, and he collaborated with playwright Mary Feldhaus-Weber on two programs. Both were composed of two tapes, broadcast over two channels simultaneously, and viewed by the home audience on two separate TV receivers. The first, *City/Motion/Space/Game*, in 1968, was a quick-paced exploration of various urban spaces by dancer Gus Solomons, Jr., with a sound score composed by John Morris, who electronically manipulated city sounds. The second, *Royal Flesh*, in 1969, was an Oedipal drama that implicated the viewer as the child of the myth. Hauser continues to work in a highly imaginative and structurally interesting way with dance and drama, pushing the medium in new directions.

The Rockefeller Foundation artist-in-residence program also brought Nam June Paik and filmmaker Stan Vanderbeek to broadcast television. Nam June began his year at WGBH in 1968-1969, doing a short segment for *The Medium Is the Medium*. He and Shuya Abe built their first video synthesizer there and first displayed its imagery in a four-hour-long blockbuster program called *Video Commune*, broadcast during the summer of 1970. The sound track was all of the Beatles' recorded music; people were invited off the streets to help contribute material (often their faces) for the synthesizer to process. Viewers at home watched four hours of dense, layered, slowly shifting, brilliantly colored images, some of which were recognizable

and some not. Stan Vanderbeek also put together a very large show, called *Violence Sonata*, which was broadcast in 1970. Vanderbeek had assembled many bits of material from which to choose, switching from one to another in real time as the show was broadcast. There were film clips of violent subject matter, a studio audience that included militant political groups, karate experts lunging at each other in the aisle, and so on. The result was typical of Vanderbeek's work at the time: a shotgun blast of information.

In 1972, another program was initiated at WGBH: the Music-Image Workshop, established by RON HAYS. (WGBH had been broadcasting music programs for several years, and in 1971 had broadcast *Video Variations*, a group of experimental visual pieces set to music played by the Boston Symphony Orchestra.) The relationship between sound and image has presented one of the thorniest problems to artists working with images in time. Many different solutions have been proposed, from using classical music for sound tracks, to composing music especially for each piece, to hooking up video and audio equipment so the sound and image are created together, to using no sound at all. Ron Hays addressed himself specifically to this problem, meeting with everyone who had given the matter serious thought.

He settled on using the Paik-Abe synthesizer as his video tool. It had no direct hook-up to music-generating equipment; it was operated manually. Hays spent months learning how to operate the synthesizer and gradually developed a "vocabulary" for it, that is, sets of images and patterns of movement he could draw upon at will. Hays said:

*At this point it was obvious that the Paik-Abe's potential visual configurations were so incredibly vast in number that some sort of discipline was demanded; some order and time structure had to be imposed if the results were to be enjoyed as anything beyond endless changing images. The structure of existing music would give me a structure within which I could produce and control and then choose the moving images.*

Thus, Hays settled on composing images with the Paik-Abe synthesizer to go with existing pieces of music, although he has worked with new music as well. He broadcast short works of video set to



specific pieces of music by various composers (Bach, Bartok, Stravinsky, Dvorak, Ravel, to name a few). Hays's first major work will be broadcast this year as part of the Norton Lectures delivered by Leonard Bernstein at Harvard University. The piece is set to the "Love-Death Prelude" from Wagner's *Tristan und Isolde*; the imagery is a complex sequence of video synthesis, computer animation, slit-scan animation, and other special visual effects.

Since February of 1974, experimental work at WGBH has shifted largely to the New Television Workshop, which inhabits a former movie theater in Watertown, Massachusetts. Managed by Dorothy Chiesa, the workshop houses a full one-half-inch-tape studio. The workshop has provided the first relatively open access to television equipment for local Boston artists, and has also invited artists like Peter Campus and William Wegman, who are already well-established in the medium, to make new tapes using the workshop facility. The workshop also has a mix of local and national talent in its special dance project, headed by Nancy Mason. The dance project continues WGBH's interest in combining dance and television, both by inviting choreographers and dancers to come to the workshop to experiment with the equipment, and by setting up a program to record existing dance of all kinds for archival purposes.

The third major center is the Television Laboratory at WNET in New York City, directed by David Loxton. It was established in 1972 with support from the Rockefeller Foundation and the New York State Council for the Arts, with special projects support from the National Endowment for the Arts. If the National Center in San Francisco was an introspective center for pure, broadcast-pressure-free research into the medium, and WGBH's workshops (until recently) existed within the fabric of the broadcast situation and nearly always put their work on the air in one form or another, the TV Lab at WNET has found a place between these two poles. During its first years, it purchased one of WNET's old black-and-white studios, Studio 46, and gradually added equipment until it is now one of the most elaborate color video studios in the country. During that year, the TV Lab also set up a mixed kind of access to the studio. Sometimes it was used by people already familiar with the medium; they participated in an artist-in-residence program (similar to the one at WGBH) in which special projects were

developed and some were aired. Sometimes the studio was made available for an artist-access program rather like the one KQED had its first year, in which people from many disciplines (sculpture, poetry, graphic design), some of them new to video, some of them not, come to try out the equipment.

Gradually, the TV Lab has devoted more and more of its time to an extended artist-in-residence program. John Godfrey, the TV Lab's engineer points out that it was very difficult due to limitations of time, to teach people new to the medium how to use the sophisticated equipment well enough to do anything new or different. At the end of the two or three weeks allotted to them, most people were still just beginning to learn the most basic image-making patterns. Since the TV Lab is the most elaborate installation of its kind, it has seemed more worthwhile to invite fewer people, who already know the basics of the medium, to process tapes they already have or to execute planned works, and to invite a few people new to the medium to come for long stays. At the same time, WNET is expanding its "broadcast access": Channel 13 broadcasts much more alternative television than just the tapes made at its own TV Lab. In fact, WNET has been the most consistent over-the-air outlet for unusual or experimental television of many kinds, from special-effects extravagances, to nightly sign-off pieces about New York City by Nam June Paik, to new kinds of documentary, or nonfiction, television.

During its first phase, which ended in the spring of 1974, a few works were made at the TV Lab that are among the classics of the video movement. In March, 1973, Ed Emshwiller's *Scape Mates* was broadcast. EMSHWILLER —



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is a filmmaker known for his technical expertise and willingness to explore new visual effects. His work typically includes the human figure, and indeed seems like a special kind of dance. *Scape Mates* was one of the first attempts to marshal special effects in video and computer animation and to construct a rounded statement; up to this time, much exploration of special effects had been going on and many "sketches" had been made, but there had been little attempt to gather them together and create a finished work. In *Scape Mates*, figures journey slowly through dazzling electronic landscapes; the use of